

What is claimed is:

1. A shunt comprising:
a housing having a base, said base having a first set of electrodes extending across
5 said base;
a catheter being connected to said housing, said catheter having a longitudinal length, a proximal end, and a distal end, said catheter having a second set of electrodes extending along the longitudinal length of the catheter, at least two of said electrodes of said first set being electrically connected to two of said electrodes of said second set.
- 10 2. The shunt according to claim 1, wherein said catheter proximal end is connected to said housing, and said catheter distal end is disposed remote from said housing, said catheter having a plurality of apertures adjacent to said distal end.
3. The shunt according to claim 2, wherein a portion of each of said electrodes of said second set extends into at least one of said plurality of apertures.
- 15 4. The shunt according to claim 3, wherein at least a first one of said electrodes of said second set extends into a first one of said plurality of apertures, and at least a second one of said electrodes of said second set extends into a second one of said plurality of apertures.
5. The shunt according to claim 4, wherein said first one of said plurality of apertures
20 is disposed approximately diametrically opposed to said second one of said plurality of apertures.
6. The shunt according to claim 3, wherein at least a first one of said electrodes of said second set extends into a first one of said plurality of apertures, and at least a second one of said electrodes of said second set extends into said first one of said plurality of
25 apertures.
7. The shunt according to claim 6, wherein said first one of said electrodes of said second set is disposed approximately diametrically opposed within said first one of said plurality of apertures with respect to said second one of said electrodes of said second set.
8. The shunt according to claim 5, wherein at least a third one of said electrodes of
30 said second set extends into said first one of said plurality of apertures.
9. The shunt according to claim 8, wherein said first one of said electrodes of said second set is disposed approximately diametrically opposed within said second one of said plurality of apertures with respect to said third one of said electrodes of said second set.

10. The shunt according to claim 8, wherein at least a fourth one of said electrodes of said second set extends into said second one of said plurality of apertures.

11. The shunt according to claim 10, wherein said second one of said electrodes of said second set is disposed approximately diametrically opposed within said second one of said plurality of apertures with respect to said fourth one of said electrodes of said second set.

12. The shunt according to claim 3, wherein said housing further includes a self sealing, needle penetrable outer housing wall.

13. The shunt according to claim 12, wherein said housing further includes a socket for receiving a probe.

14. The shunt according to claim 13, wherein said first set of said electrodes extends at least partially through a base of said socket.

15. The shunt according to claim 13, wherein said first set of said electrodes have a first end that terminate in a base of said socket.

16. The shunt according to claim 3, wherein said first set of said electrodes include at least four electrodes, and said second set of said electrodes include at least four electrodes.

17. The shunt according to claim 13, wherein said socket has an internal double D-shaped cross-section.

18. A system for clearing an implanted catheter that is connected to a shunt, said system comprising:

20 a housing having a base, said base having a first set of electrodes extending across said base, said housing including a self sealing, needle penetrable outer housing wall;

a catheter being connected to said housing, said catheter having a longitudinal length, a proximal end, and a distal end, said catheter having a second set of electrodes extending along the longitudinal length of the catheter, at least two of said electrodes of said first set being electrically connected to two of said electrodes of said second set; and
25 a probe assembly being selectively penetratable through said outer housing wall.

19. The system according to claim 18, wherein said probe assembly includes a retractable needle for penetrating said outer wall and a sheath disposed about said needle.

20. The system according to claim 19, wherein said probe assembly includes a retractable probe, said probe having a distal end including a plurality of contacts.

21. The system according to claim 20, wherein said plurality of contacts are resiliently biased in said distal direction.

22. The system according to claim 21, wherein said housing further includes a socket for receiving said probe.

23. The system according to claim 22, wherein said first set of said electrodes extends at least partially through a base of said socket.

24. The system according to claim 22, wherein said first set of said electrodes have a first end that terminate in a base of said socket.

5 25. The system according to claim 20, wherein said first set of said electrodes include at least four electrodes, and said second set of said electrodes include at least four electrodes.

26. The system according to claim 25, wherein said plurality of contacts include at least two contacts.

10 27. The system according to claim 25, wherein said plurality of contacts include at least four contacts.

28. The system according to claim 22, wherein said socket has an internal double D-shaped cross-section.

15 29. The system according to claim 28, wherein said probe has an external double D-shaped cross-section that mates with the internal double D-shaped cross-section of said socket.

30. A method of clearing an implanted catheter that is connected to a shunt, wherein said shunt includes a housing having a base, said base having a first set of electrodes extending across said base, said housing including a self sealing, needle penetrable outer housing wall, said housing further includes a socket, and wherein said catheter being connected to said housing, said catheter having a longitudinal length, a proximal end, and a distal end, said catheter having a second set of electrodes extending along the longitudinal length of the catheter, at least two of said electrodes of said first set being electrically connected to two of said electrodes of said second set, said method comprising the steps of:

puncturing said outer wall;

inserting a probe having a plurality of contacts at a distal end thereof into said socket such that said plurality of contacts contact said first set of electrodes;

30 providing bipolar electrosurgical power to said second set of electrodes via said plurality of contacts and said first set of electrodes; and
clearing a fluid blockage in said catheter.

31. The method according to claim 30, wherein said catheter has a plurality of apertures adjacent to said distal end, said providing step includes providing power to two electrodes each having a portion projecting into the same aperture.

32. The method according to claim 30, wherein said catheter has a plurality of apertures adjacent to said distal end, said providing step includes providing power to two electrodes each having a portion projecting into apertures that are approximately diametrically opposed to each other.

- 5 33. The method according to claim 30, wherein said catheter has a plurality of apertures adjacent to said distal end, said providing step includes providing power to two electrodes each having a portion projecting into apertures that are approximately diametrically opposed to each other, and includes providing power to two electrodes each having a portion projecting into apertures that are approximately diametrically opposed to
10 each other.